



January 13, 2015

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Reference: Davis County Stormwater Coalition – Contractor Stormwater Training

Stantec will invite guest speakers to enhance the training that is being presented and/or sit on the panel discussion. Potential guest speakers include, but are not limited to:

- Harry Campbell, Utah Division of Water Quality – Introduction to the Construction General Permit and clarification of permit requirements
- Davis County Health Department – Enforcement
- GeoDynamics representative – Control measures and methods for adhering to buffer requirements
- Granite Seed representative – Stabilization requirements

Personnel and Experience

Whitney McReynolds, PE, CPESC and Phyllis Mayhew PE, CPESC will provide the training. Whitney and Phyllis are both licensed engineers and Certified Professionals in Erosion and Sediment Control. They each have over 14 years of experience working in environmental management and compliance on projects involving stormwater, surface water, SPCC plans, wetlands and permitting. They have a wide range of stormwater experience that includes preparing and assisting with implementation of stormwater permits and Stormwater Pollution Prevention Plans for construction, municipal, and industrial permits. Whitney and Phyllis have presented at several conferences; the most recent was titled "2014 Stormwater Construction Permit – What's New for the SWPPP" at the 2014 APWA Conference/Stormwater Expo. Their qualifications are highlighted in the following table and in the attached resumes:

Trainer	Whitney McReynolds	Phyllis Mayhew
Credentials	PE, CPESC	PE, CPESC
Education	BS – Civil Engineering	ME – Civil and Environmental Engineering BS - Bioengineering
Years of Experience	14	15
Preparation of SWPPPs	X	X
Coordination with regulators	X	X
Construction site inspections	X	X
Review of SWPPPs and erosion/sediment control plans	X	X

Whitney A. McReynolds PE

Project Engineer – Permitting/ Compliance



Ms. McReynolds is a licensed civil engineer with over ten years of experience. She has worked extensively in environmental management and compliance on projects involving stormwater, surface water, wetlands and permitting. She also has experience in master planning, and site/civil design. She has worked with the US Army Corps of Engineers and other Federal and State agencies on projects involving wetlands/surface waters as part of the Clean Water Act and has experience conducting wetland delineations and preparing Section 404 permits. In clean water compliance, she has produced storm water pollution prevention plans (SWPPP) for compliance with the Utah Pollutant Discharge Elimination System (UPDES) Permits for both industrial and construction activities. She has prepared erosion control plans and conducted erosion control inspections during construction. Her experience also includes resort planning and design, and preparing permits required for resort development.

EDUCATION

BS, Civil and Environmental Engineering, Cornell University, Ithaca, New York, 1995

REGISTRATIONS

Certified Erosion, Sediment and Storm Water Inspector #6780, Certified Professional in Erosion and Sediment Control, Inc.

Professional Engineer #6131376-2202, State of Utah

MEMBERSHIPS

Member, American Water Resources Association
Member, Utah Women of Water

PROJECT EXPERIENCE

Salt Lake County Storm Water Monitoring (Project Engineer)

Responsible for managing team to conduct countywide storm water sampling for compliance with Utah Pollutant Discharge Elimination System (UPDES) Permit. Work included training the sampling team, analyzing hydrographs after each storm event, preparing composite samples for laboratory analysis and reviewing water quality data for calculation of event mean concentrations (EMCs) and annual pollutant loads for various land uses. Also assisted client with implementation of an instream sampling program.

Hill Air Force Base - Stormwater Pollution Prevention Plan and Implementation, Ogden, Utah (Project Engineer)

Ms. McReynolds developed a storm water pollution prevention plan to comply with the Utah Pollutant Discharge Elimination System (UPDES) general multi-sector permit for storm water discharges associated with industrial activities.

The Canyons Resort Village Management Association Stormwater Inspections (Project Manager)

Conducted weekly third-party stormwater inspections for multiple projects at the Canyons Resort that included construction of a golf course, hotel and townhomes. Included onsite inspections and coordination with client and contractors as well as review of project specific construction mitigation plans and stormwater pollution prevention plans.

Storm Water Pollution Prevention Plans (Project Engineer)

Ms. McReynolds has prepared numerous stormwater pollution prevention plans (SWPPP's) for proposed developments to comply with UPDES Permits for both industrial and construction activities. In addition to preparing the SWPPP, she also prepares and reviews erosion control plans, conducts erosion control inspections and coordinates with state and federal agencies for Notice of Violations.

Montage Resort and Spa at Deer Valley - Construction Phase, Park City, Utah (Project Engineer)

Developed an erosion control plan and Stormwater Pollution Prevention Plan (SWPPP) to satisfy State requirements for the Utah Pollutant Discharge Elimination System (UPDES) permit. The SWPPP also was prepared in coordination with the Construction Work Plan for the site. Responsible for determining erosion and sediment control practices to be implemented during construction activities. Conducted erosion and sediment control observations on a bi-weekly basis to verify compliance with SWPPP and erosion control plan. Provided recommendations for additional Best Management Practices (BMPs) or improvement of existing BMPs to minimize erosion and sediment discharge at the site.

* denotes projects completed with other firms

Whitney A. McReynolds PE

Project Manager - Permitting/Compliance

Detroit Diesel Remanufacturing Facility Stormwater Pollution Prevention Plan and Spill Prevention, Control and Countermeasure Plan (Project Engineer)

Conducted an inventory of the manufacturing facility and prepared a Spill Prevention, Control and Countermeasure (SPCC) Plan. Also prepared a storm water pollution prevention plan to comply with the Utah Pollutant Discharge Elimination System (UPDES) general multi-sector permit for storm water discharges associated with industrial activities.

Wal-Mart Wetland Delineation – Pleasant Grove, Utah (Project Manager)

Conducted a wetland delineation on a 6-acre project site for the proposed Wal-Mart Store and access road. She coordinated with the US Army Corps of Engineers to obtain approval for No Permit Required.

Deer Cove Wetland Permitting and Mitigation Services, Fruit Heights, Utah (Project Engineer)

Prepared a Section 404 permit application for an individual permit for impacts to wetlands for a proposed 19-acre subdivision. The application required a detailed alternatives analysis and mitigation plan, and negotiations with the US Army Corps of Engineers to determine suitable mitigation and mitigation rations. The on-site mitigation consisted of developing a restoration and enhancement plan for existing wetlands, as well as a stream relocation plan. The off-site mitigation consisted of investigating various alternatives for mitigation and providing plans for wetland creation and enhancement.

Sandy City Promenade Boardwalk, Sandy, Utah (Project Engineer)

Provided project management and design services for construction of the welland center. Ms. McReynolds developed an enhancement plan to restore the degraded wetland which consisted of replacing invasive species with native wetland plants and trees.

In addition, Ms. McReynolds coordinated with the client and designers to produce construction drawings for the boardwalk, viewing platforms and landscaping plans. She provided oversight and management during construction.

Neffs Grove - Sandy City Parks and Recreation, Sandy, Utah (Project Engineer)

Produced the maintenance plan to restore Dry Creek tributaries in Neff's Grove. Additionally, she coordinated the design and implementation of the Neff's Grove restoration plan.

Park Lane Crossing Surface Water Assessment, Farmington, Utah (Project Engineer)

Conducted an assessment of the existing surface water and storm drain system on the 130-acre property. Determined status of waters rights and diversions on property. Coordinated with Farmington City regarding storm drain master plan and future storm drain infrastructure. Provided client recommendations for site planning and potential permitting requirements.

Sandy City Parks and Recreation Jordan River Trail Connection Categorical Exclusion, Sandy, Utah (Project Engineer)

Assisted in preparation of CatEx document for the proposed construction of a recreational trail in Sandy, Utah to connect portions of the Jordan River Trail. The CatEx required coordination with federal, state and local regulating agencies for input regarding potential environmental impacts. The CatEx required a wetland delineation, a Section 404 permit, a Salt Lake County flood control permit, a cultural resource inventory and a biological assessment of threatened and endangered species. Noxious weeds, hazardous waste, wildlife and other environmental factors were also evaluated. The CatEx was approved by the Utah Department of Natural Resources and the Utah Department of Transportation.

Snowbasin Resort Infrastructure Master Plan (Project Engineer)

Identified the infrastructure improvements needed to support the proposed Snowbasin Development consisting of approximately 12,000 acres in two counties and separated into the eight development areas. Responsible for analysis of existing infrastructure, calculation of water demands, sewer flows and water right demands. Sustainable design practices were incorporated to minimize impacts on natural resources.

* denotes projects completed with other firms

Ms. Phyllis Mayhew specializes in environmental permitting including projects involving water quality, hydrology and hydraulics. She has prepared Stormwater Pollution Prevention Plans (SWPPPs), Spill Prevention Control and Countermeasure (SPCC) Plans, Stream Alteration Permits, Flood Control Permits and Utah Pollutant Discharge Elimination System (UPDES) Permits for various projects. She has also conducted Phase 1 Environmental Site Assessments (ESAs).

Ms. Mayhew has experience in analyzing surface water runoff quantity and quality and hydraulic designs using various computer models. Much of her work has included fieldwork and analysis of water samples to investigate sources of pollution.

EDUCATION

BS, Bioengineering, Syracuse University, Syracuse, New York, 1992

ME, Civil and Environmental Engineering, University of Utah, Salt Lake City, Utah, 2001

REGISTRATIONS

Certified Professional in Erosion and Sediment Control #6779, Certified Professional in Erosion and Sediment Control, Inc.

Professional Engineer #4940376-2202, State of Utah

MEMBERSHIPS

8-hour HAZWOPER Supervisor Training,
Occupational Safety & Health Administration

8-Hour HAZWOPER Refresher Training,,
Occupational Safety & Health Administration

40-Hour OSHA Safety Training - SARA Title I,
Occupational Safety & Health Administration

Member, American Society of Civil Engineers

Member Representative, Society of American
Military Engineers, Great Basin Post

PROJECT EXPERIENCE

Permitting and Regulatory Compliance

Hill Air Force Base - Storm Water Management Plan,
Hill Air Force Base, Utah (Project Engineer)

Assisted Hill Air Force Base with the preparation of the Stormwater Management Plan required for the UPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Developed and conducted PowerPoint training programs for base personnel and conducted investigations of non-stormwater discharges to determine status of de minimis or removal from the stormwater system, as well as sampling of the non-stormwater discharges for possible permitting. Evaluated post-construction water quality controls and developed a technical document with multiple choices of Best Management Practices that can be utilized on the base.

Hill Air Force Base Pond 1 Remedial Design -
Operable Unit 9, Hill Air Force Base, Utah (Project Engineer)

Developed an erosion control plan and stormwater pollution prevention plan (SWPPP) to satisfy state requirements for the UPDES permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities

Hill Air Force Base Utah Test and Training Range, Hill Air Force Base, Utah (Project Engineer)

Assisted with the preparation of the Storm Water Pollution Prevention Plan (SWPPP) for the Utah Test and Training Range (UTTR). Conducted a site visit to determine potential pollutant sources and activities that could contribute significant amounts of pollutants to storm water discharges.

* denotes projects completed with other firms

Phyllis M. Mayhew PE

Project Engineer - Environmental Management

Stormwater General Permit for Construction Activities, Various Locations, Utah (Project Engineer)

Developed sediment and erosion control plans and storm water pollution prevention plans (SWPPPs) to satisfy state requirements for the UPDES permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities. Projects include residential and commercial developments in urban and mountainous environments.

Rose Creek Realignment, Riverton, Utah (Project Engineer)

Coordinated with the City of Riverton, Salt Lake County Flood Control and the State of Utah Division of Water Rights during the design and permitting of the realignment. The realignment consisted of rerouting the existing creek around future development. Total length of the new creek is approximately 4,100 feet. Engineer responsible for permitting applications for flood control and stream alteration.

Kennecott Land Company, South Jordan, Utah (Project Engineer)

Developed an erosion control plan and storm water pollution prevention plan to satisfy State requirements for the Utah Pollutant Discharge Elimination System (UPDES) permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities. Responsible for the modeling and design of the storm water system at the Kennecott site. The entire site is approximately 4500 acres. Primary responsibilities included delineating drainage subbasins and calculating the proposed flows along with site-specific infiltration/retention requirements.

Regulatory Permitting

Benchmark Storm Water Pollution Prevention Plan (SWPPP), Various Locations, Utah (Project Manager)

Developed sediment and erosion control plans and stormwater pollution prevention plans (SWPPPs) to satisfy state requirements for the UPDES permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities.

SLI Commercial Real Estate Storm Water Pollution Prevention Plan (SWPPP) Review, Various Locations, Utah (Project Manager)

Developed sediment and erosion control plans and stormwater pollution prevention plans (SWPPPs) to satisfy state requirements for the UPDES permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities.

Auto Owners Insurance Draper Office, Draper, Utah (Task Manager)

Designed the erosion control plan and prepared the Stormwater Pollution Prevention Plan (SWPPP) for construction activities.

Corner Creek Plaza, Draper, Utah (Task Manager)

Coordinated with the client, Utah Stream Alteration, Salt Lake County Flood Control and US Army Corps of Engineers to determine a site layout that would have minimum impact to the creek. Prepared and submitted permit applications for stream alteration and flood control. Designed the erosion control plan and prepared the Stormwater Pollution Prevention Plan (SWPPP) for construction activities.

Environmental Inspection / Post Construction Monitoring

Bingham Junction - View 72 Office, Midvale, Utah (Environmental Engineer)

Developed an erosion control plan and Stormwater Pollution Prevention Plan (SWPPP) to satisfy State requirements for the Utah Pollutant Discharge Elimination System (UPDES) permit. Responsible for determining erosion and sediment control practices to be implemented during construction activities.

Prepared a Material Management Plan (MMP) to comply with the Midvale City Ordinance and site Institutional Controls. The MMP addressed how the various soil types on the site were to be categorized and managed. Stantec also provided Special Inspector services as per the City Ordinance. The Special Inspector verified that the on-site work was conducted in accordance with the MMP.

Assisted the client with obtaining Utah stream alteration permits and Salt Lake County flood control permits for the project. The project included construction of three stormwater detention ponds with discharges to the Jordan River, relocation of a Salt Lake County stormwater drainage ditch with discharge to the Jordan River, and relocation of a UDOT stormwater drainage discharge to the Jordan River.

* denotes projects completed with other firms

Phyllis M. Mayhew ^{PE}

Project Engineer - Environmental Management

Montage Resort and Spa at Deer Valley -
Construction Phase, Park City, Utah (Project
Engineer)

Developed an erosion control plan and Stormwater Pollution Prevention Plan (SWPPP) to satisfy State requirements for the Utah Pollutant Discharge Elimination System (UPDES) permit. The SWPPP also was prepared in coordination with the Construction Work Plan for the site. Responsible for determining erosion and sediment control practices to be implemented during construction activities. Conducted erosion and sediment control observations on a bi-weekly basis to verify compliance with SWPPP and erosion control plan. Provided recommendations for additional Best Management Practices (BMPs) or improvement of existing BMPs to minimize erosion and sediment discharge at the site.

Water Resources Management

Hill Air Force Base Stormwater Training, Hill Air Force
Base, Utah (Project Manager)

Project manager for Hill AFB stormwater training projects that included development of a stormwater training video, conducting an investigation of the high levels of magnesium in stormwater at the DRMO and developing a unique logo for the Hill AFB stormwater program. The stormwater training video consisted of working with Hill AFB personnel and a subcontractor to develop a script, identify video site locations and assisting during the video preparation.

Hill Air Force Base Stormwater Projects, Hill Air Force
Base, Utah (Project Manager)

Project manager for various stormwater related projects. The projects included the preparation of a capacity study for the two base detention ponds, a stormwater pond maintenance plan, update of the Industrial Stormwater Pollution Prevention Plans, a feasibility study for removal of the non-stormwater discharges, design of the UTTR Reverse Osmosis (RO) Containment Pond and a deicing feasibility study.

Hill Air Force Base - Stormwater Pollution Prevention
Plan and Implementation, Hill Air Force Base, Utah
(Project Engineer)

Engineer involved with assisting Hill AFB with managing and complying with the Utah Pollutant Discharge Elimination System (UPDES) General Multi-Sector Permit for Storm Water Discharges Associated with Industrial Activities. Modified the existing Stormwater Pollution Prevention Plan (SWPPP) to include new industrial categories and information gathered during the Annual Comprehensive Site Evaluations and State of Utah Division of Water Quality Inspections. Developed a manual for selecting and implementing Best Management Practices (BMPs). Prepared the dry weather screening plan, wet weather screening plan and de-icing/anti-icing screening plan for the base and conducted stormwater quality sampling during storm events, dry weather and deicing events. Developed monthly articles for the base newspaper and work area posters to discuss stormwater issues and prepared an annual report documenting all stormwater activities conducted at the base throughout the year.

As part of the implementation plan, conducted the annual comprehensive site evaluation for Hill Air Force Base in accordance with the Hill Air Force Base UPDES permit for storm water discharges associated with air transportation facilities. The evaluation consisted of on-site observations of the industrial facilities, assessment of compliant and non-compliant areas, identification of mitigation or management practices to bring the areas into compliance and documentation of the process.

* denotes projects completed with other firms